

**Soft X-ray Flares and Magnetic Configuration
in Solar Active regions**

Hongqi Zhang et al.

Beijing Astronomical Observatory

National Astronomical Observatories

Chinese Academy of Sciences, Beijing 100012, China

In this paper, we examine the observational soft X-ray flares and the relationship with photospheric vector magnetograms in solar active regions.

We analyze the initial reconnection of the magnetic field in the flares occurred near the magnetic neutral line in the lower atmosphere of active regions, where the highly sheared magnetic flux probably erupts up and triggers the reconnection of the large-scale magnetic field.

We also represent the corresponding relationship between the current helicity and soft X-ray flares in solar active regions.